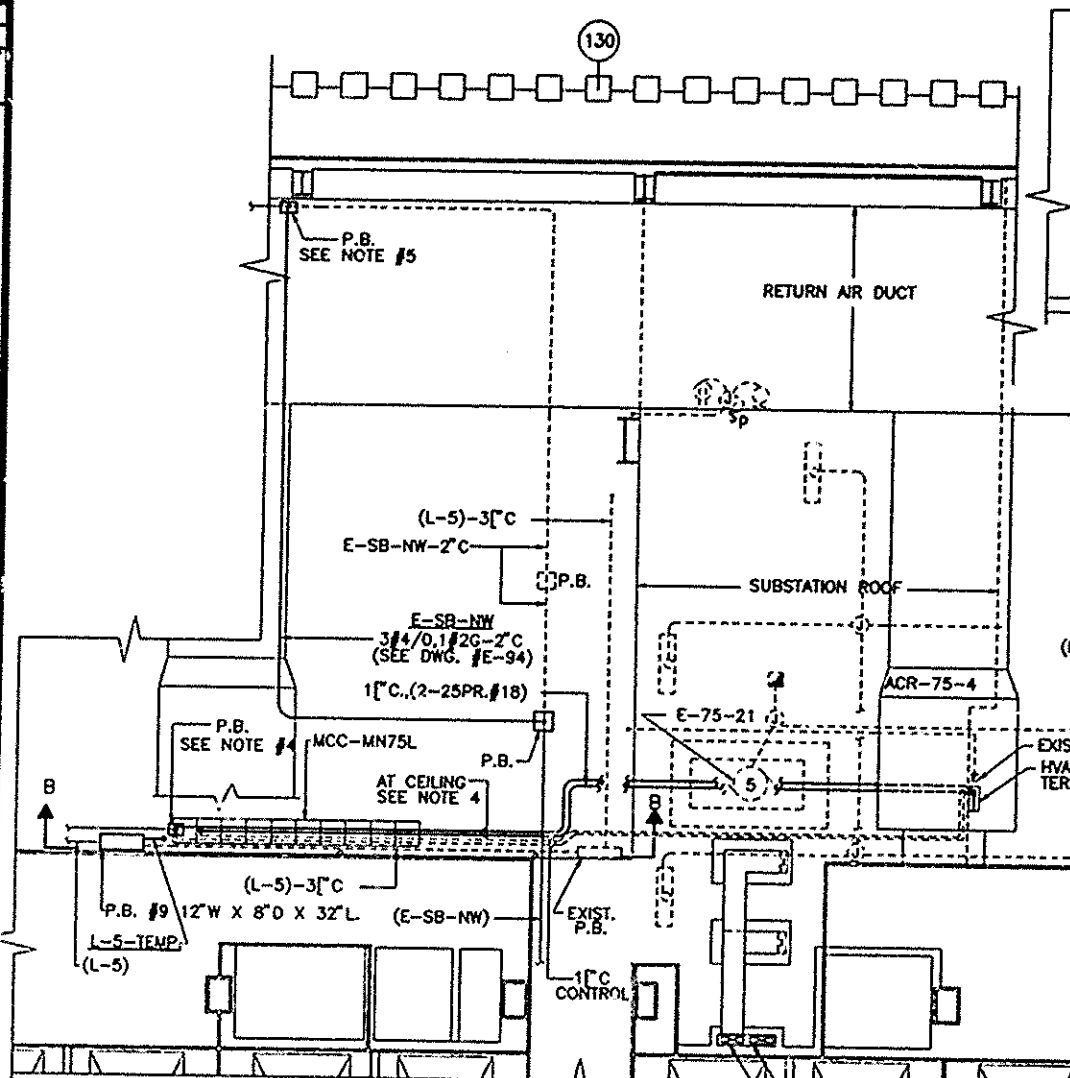


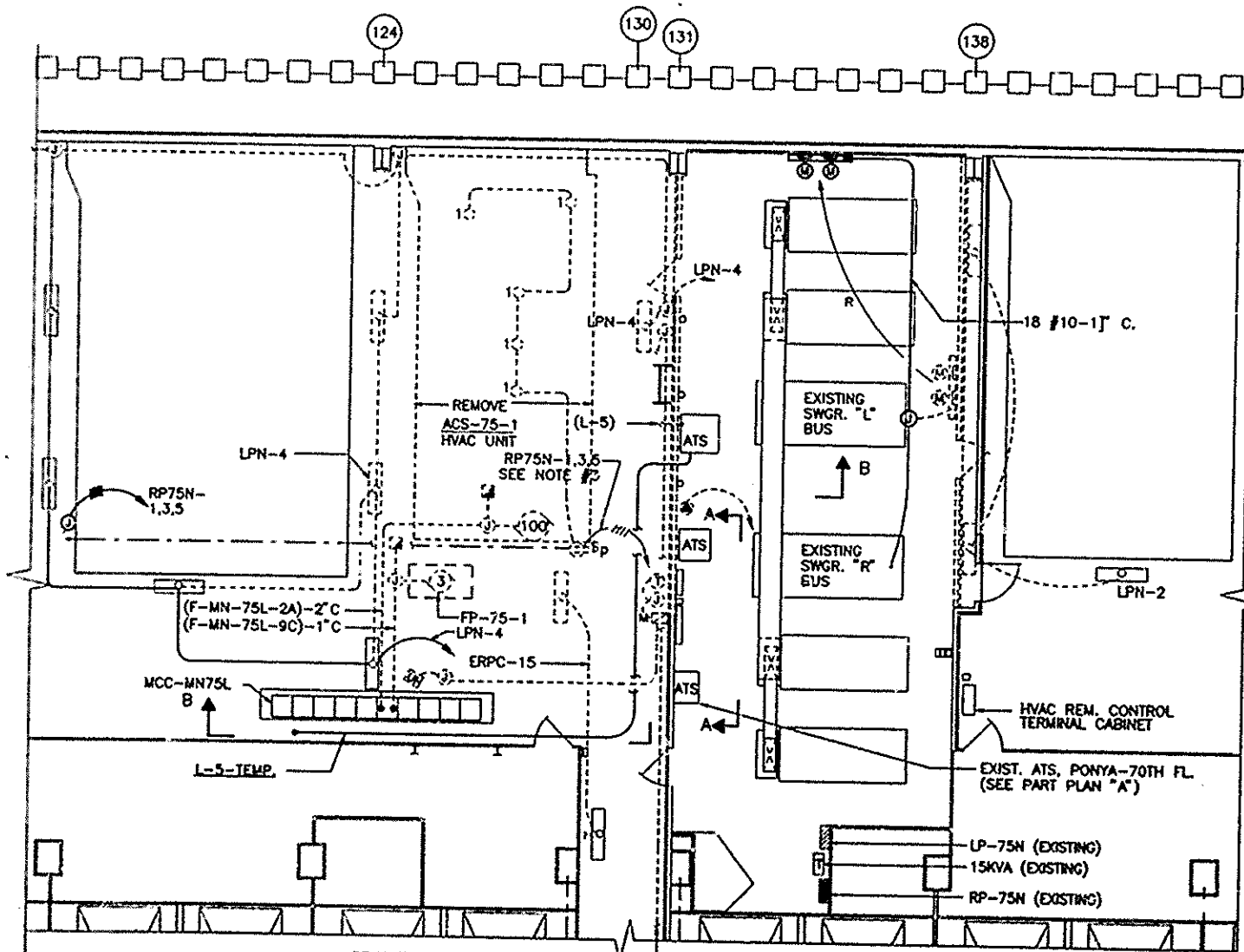
PA-SHT REV 5

# SEQUENCE OF INSTALLATION - STAGE I

- FOR CDT & CABLE SCHEDULE SEE DWG. E-37
- SR-8** -- PONYA TRANSFER SWITCH
- a. INSTALL P.B.#X & CDT'S SR-8, CONNECT TO P.B. & EXISTING CDT'S AS SHOWN.
  - b. --ALTERNATE FDR FROM SUB-SS-75S
- SR-8**
- a. INSTALL FDR SR-8 FROM P.B.#1 THRU P.B.#X TO ATIS-PONYA. (LOAD SUPPLIED FROM R-9 AT ATIS)
  - b. CUT AND DISCONNECT FDR SR-8 IN P.B.#1 AND AT ATIS. REMOVE FDR AND CDT. AS SHOWN.
  - c. SPLICE AND CONNECT FDR SR-8 IN P.B.#1 AND AT ATIS. (ENERGIZE)
- A-2** -- ATIS-75NL-SEE DWG. E-37
- a. DISCONNECT FEEDER AT PANEL EPC-75A AND ATIS-75NL.
  - b. CUT AND REMOVE CONDUIT AND CONDUCTORS AS SHOWN.
  - c. INSTALL FLEXIBLE CDT'S AS SHOWN.
  - d. INSTALL FEEDER A-2-TEMP. FROM P.B.#1 TO ATIS-75NL.
  - e. SPLICE AND CONNECT FDR IN P.B.#1, PNL EPC-75A AND AT ATIS-75NL. (ENERGIZE) SEE DWG. E-37.
- L-5** -- HOT WATER HEATERS
- a. DISCONNECT FEEDER AT SWGR. "L".
  - b. CUT AND REMOVE CONDUIT, PB AND CONDUCTORS AS SHOWN.
  - c. INSTALL P.B.#9 AND FLEXIBLE CDT AS SHOWN.
  - d. INSTALL FEEDER L-5-TEMP. FROM P.B.#9 TO SWGR. "L".
  - e. SPLICE AND CONNECT FDR IN P.B.#9 AND AT SWGR. "L" (ENERGIZE)
- R-9a** -- PONYA TRANSFER SWITCH
- a. CUT EXIST. CDT. (X2) AT P.B.#3 AND SWITCHGEAR.
  - b. INSTALL CDT. R-9a AND CONNECT TO EXIST. CDT. (X2).
  - c. INSTALL FDR R-9a FROM P.B. ATIS. PONYA TO P.B.#3
  - d. DISCONNECT EXIST. AND CONNECT FDR R-9a AT ATIS. AND P.B.#3. (ENERGIZE)
  - e. REMOVE EXIST. FDR R-9a BACK TO SWGR.
- == CATEGORY "A" OR "B" - LOAD OUTAGE-SEE NOTE #6  
 == CATEGORY "C" - LOAD OUTAGE-SEE NOTE #6

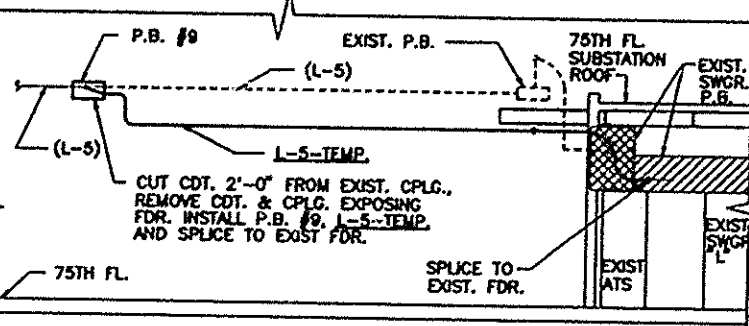


PLAN - 76th FL. - SS-75N



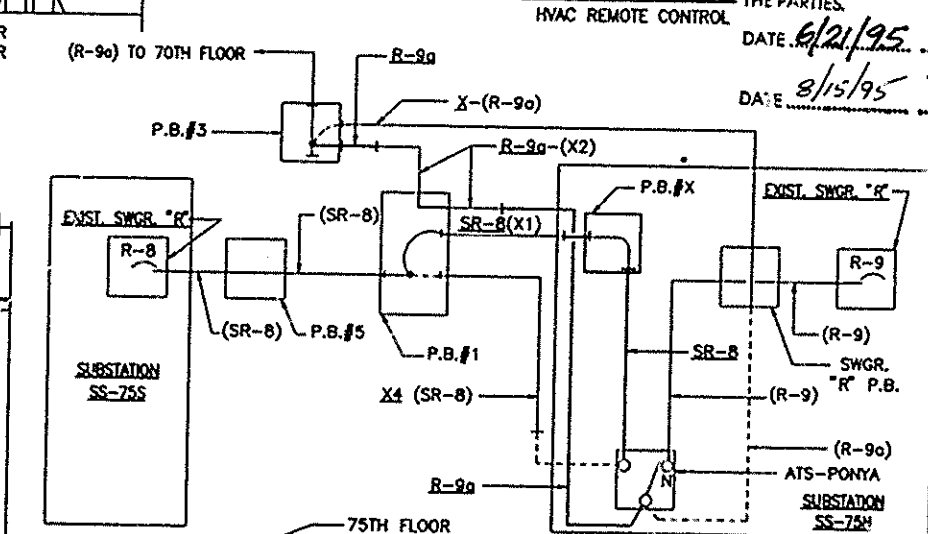
PLAN - 75th FL. - SS-75N

## SECTION B-B RELOCATION OF FDR L-5

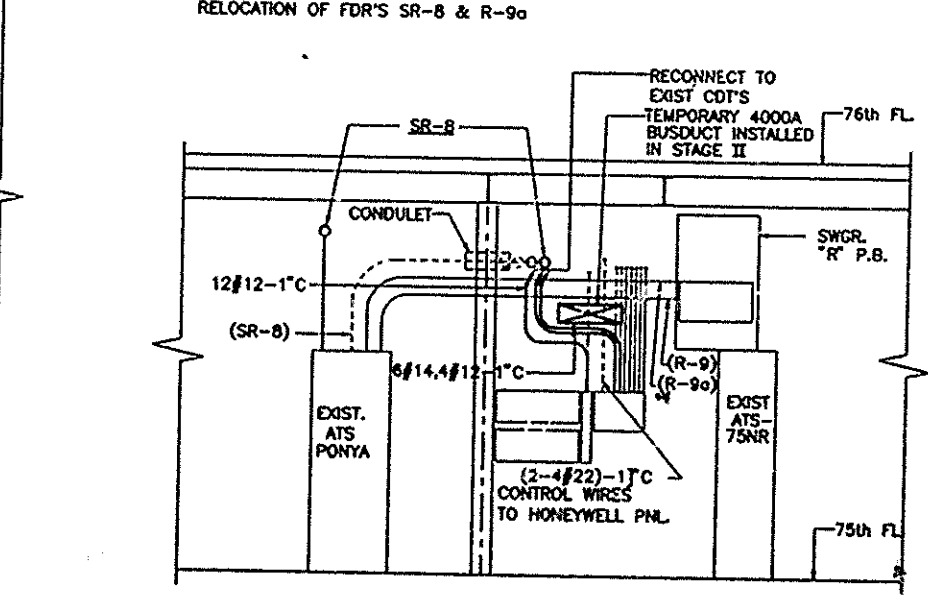


- NOTES**
- 1.-FOR LEGEND SEE DWG. E-1, FOR GENERAL NOTES, ABBREVIATIONS AND LIGHTING FIXTURE SCHEDULE SEE DWG. E-2.
  - 2.-FOR TYPICAL SUBSTATION STAGE I SEQUENCE OF INSTALLATION SEE DWG. E-4.
  - 3.-REMOVE RECEPTACLE AND BRANCH CIRCUIT WIRING (RP75N-1,3&5) BACK TO PANELBOARD, ABANDON CONDUIT IN FLOOR SLAB, CUT CONDUIT STUB-UPS FLUSH WITH FLOOR SLAB AND PLUG CONDUIT.
  - 4.-THE CONTRACTOR SHALL REMOVE AND INSTALL HVAC REMOTE CONTROL CONDUIT AND CABLE RUNS AS SHOWN ON PLAN AND DESCRIBED BELOW.
    - A.-CUT EXISTING CONDUIT AND CABLE APPROX. 2'-0\"
    - B.-REMOVE CONDUIT AND CABLE RUN TO EXISTING TERMINAL CABINET.
    - C.-INSTALL PULL BOX, CONDUIT AND CABLE RUN TO TERMINAL CABINET.
    - D.-SPLICE TO EXISTING CABLE IN PULL BOX AND CONNECT TO TERMINAL IN EXIST. HVAC REMOTE CONTROL TERMINAL CABINET. (SEE NOTE #17, DWG. E-2)
  - 5.-INTERCEPT AND REROUTE EXISTING WIRING SYSTEM TO PROVIDE SPACE FOR NEW INSTALLATION. PROVIDE JUNCTION BOX AT ENDS OF CONDUITS THAT REMAIN. INSTALL WIRE IN REROUTED SECTION AS SHOWN AND SPLICE TO EXISTING WIRES, IN JUNCTION BOXES.
  6. ALL ELECTRICAL OUTAGES SHALL BE PERFORMED OUTSIDE NORMAL BUILDING OPERATING HOURS. SEE SPECIFICATIONS, DIVISION 1 ENTITLED "CONDITIONS AND PRECAUTIONS" FOR DESCRIPTION OF ELECTRICAL POWER OUTAGE CATEGORIES.

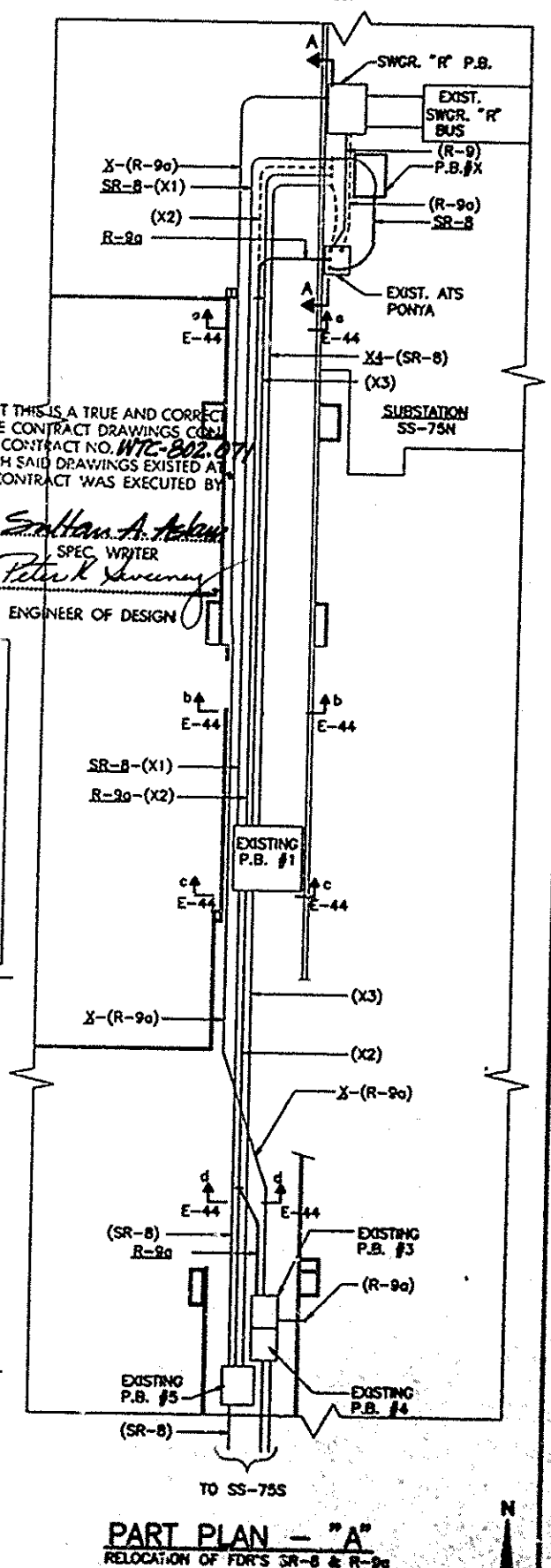
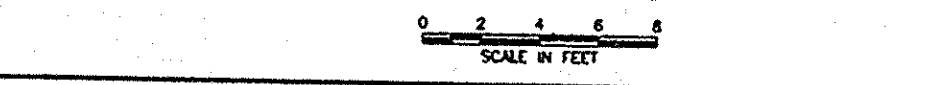
## DIAGRAM "B" HVAC REMOTE CONTROL



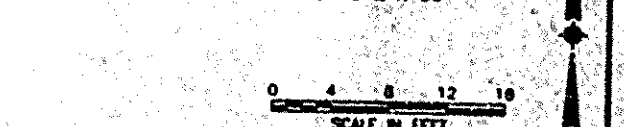
## DIAGRAM "A" RELOCATION OF FDR'S SR-8 & R-9a



## SECTION A-A



## PART PLAN - "A" RELOCATION OF FDR'S SR-8 & R-9a



THE PORT AUTHORITY  
OF NY & NJ

*Peter K. Sweeney*  
ENGINEERING PROGRAM MANAGER  
WORLD TRADE CENTER  
CHIEF ELECTRICAL ENGINEER

Engineering Department  
Design Division  
**The World Trade Center**  
Electrical/HVAC  
Upgrade Program

TOWER ONE AND TWO  
LOW VOLTAGE  
SUBSTATIONS  
CONSTRUCTION AND  
INSTALLATION

ELECTRICAL  
SUBSTATION SS-75N  
STAGE I  
REMOVAL AND  
RELOCATION PLANS  
SHEET #1

No.	Date	Revision	Approved
1	5-1-85		ROYZMAN
2	5-1-85		ROYZMAN
3	5-1-85		ROYZMAN
4	5-1-85		ROYZMAN
5	5-1-85		ROYZMAN
6	5-1-85		ROYZMAN
7	5-1-85		ROYZMAN
8	5-1-85		ROYZMAN
9	5-1-85		ROYZMAN
10	5-1-85		ROYZMAN
11	5-1-85		ROYZMAN
12	5-1-85		ROYZMAN
13	5-1-85		ROYZMAN
14	5-1-85		ROYZMAN
15	5-1-85		ROYZMAN
16	5-1-85		ROYZMAN
17	5-1-85		ROYZMAN
18	5-1-85		ROYZMAN
19	5-1-85		ROYZMAN
20	5-1-85		ROYZMAN
21	5-1-85		ROYZMAN
22	5-1-85		ROYZMAN
23	5-1-85		ROYZMAN
24	5-1-85		ROYZMAN
25	5-1-85		ROYZMAN
26	5-1-85		ROYZMAN
27	5-1-85		ROYZMAN
28	5-1-85		ROYZMAN
29	5-1-85		ROYZMAN
30	5-1-85		ROYZMAN
31	5-1-85		ROYZMAN
32	5-1-85		ROYZMAN
33	5-1-85		ROYZMAN
34	5-1-85		ROYZMAN
35	5-1-85		ROYZMAN
36	5-1-85		ROYZMAN
37	5-1-85		ROYZMAN
38	5-1-85		ROYZMAN
39	5-1-85		ROYZMAN
40	5-1-85		ROYZMAN
41	5-1-85		ROYZMAN
42	5-1-85		ROYZMAN
43	5-1-85		ROYZMAN
44	5-1-85		ROYZMAN
45	5-1-85		ROYZMAN
46	5-1-85		ROYZMAN
47	5-1-85		ROYZMAN
48	5-1-85		ROYZMAN
49	5-1-85		ROYZMAN
50	5-1-85		ROYZMAN
51	5-1-85		ROYZMAN
52	5-1-85		ROYZMAN
53	5-1-85		ROYZMAN
54	5-1-85		ROYZMAN
55	5-1-85		ROYZMAN
56	5-1-85		ROYZMAN
57	5-1-85		ROYZMAN
58	5-1-85		ROYZMAN
59	5-1-85		ROYZMAN
60	5-1-85		ROYZMAN
61	5-1-85		ROYZMAN
62	5-1-85		ROYZMAN
63	5-1-85		ROYZMAN
64	5-1-85		ROYZMAN
65	5-1-85		ROYZMAN
66	5-1-85		ROYZMAN
67	5-1-85		ROYZMAN
68	5-1-85		ROYZMAN
69	5-1-85		ROYZMAN
70	5-1-85		ROYZMAN
71	5-1-85		ROYZMAN
72	5-1-85		ROYZMAN
73	5-1-85		ROYZMAN
74	5-1-85		ROYZMAN
75	5-1-85		ROYZMAN
76	5-1-85		ROYZMAN
77	5-1-85		ROYZMAN
78	5-1-85		ROYZMAN
79	5-1-85		ROYZMAN
80	5-1-85		ROYZMAN
81	5-1-85		ROYZMAN
82	5-1-85		ROYZMAN
83	5-1-85		ROYZMAN
84	5-1-85		ROYZMAN
85	5-1-85		ROYZMAN
86	5-1-85		ROYZMAN
87	5-1-85		ROYZMAN
88	5-1-85		ROYZMAN
89	5-1-85		ROYZMAN
90	5-1-85		ROYZMAN
91	5-1-85		ROYZMAN
92	5-1-85		ROYZMAN
93	5-1-85		ROYZMAN
94	5-1-85		ROYZMAN
95	5-1-85		ROYZMAN
96	5-1-85		ROYZMAN
97	5-1-85		ROYZMAN
98	5-1-85		ROYZMAN
99	5-1-85		ROYZMAN
100	5-1-85		ROYZMAN